

ABSTRACT OF THE DISCLOSURE

The ion implanting apparatus of the present invention comprises a wafer cassette capable of loading a plurality of wafers, an implanting chamber including an implanting base, a cassette-transferring module for moving the wafer cassette, and a wafer-transferring module for moving the wafer from the wafer cassette to the implanting base. The wafer cassette comprises a plurality of irradiation tray for loading the wafer, while the implanting base comprises a guiding slot for guiding the irradiation tray. The cassette-transferring module comprises a rack positioned on the wafer cassette, a gear for moving the wafer cassette by driving the rack through rotating, and a first stepping motor for driving the gear. The wafer-transferring module comprises a push plate for moving the irradiation tray from the wafer cassette to the implanting base, and a second stepping motor for driving the push plate.